

ABSTRACT OF THE DISCLOSURE

In a preferred embodiment, the invention provides a method and system for allowing a frequency synthesizer to function despite long delays. A first and second phase comparator, each with at least three inputs and an output are preset to a
5 predetermined logical value by a first control circuit. A first signal is connected to an input of the first and second phase comparators. A second signal is connected to a second input of the second phase comparator and to the input of a programmable dead zone delay circuit. The output of the programmable dead zone delay circuit is connected to a second input of the first phase comparator. A preset value,
10 determined by the first control circuit, is presented on the outputs of the first and second phase comparators. Until metastability is resolved, these outputs retain a valid fail-safe default.